

NEW GENERA AND SPECIES OF DEXIDÆ.

BY D. W. COQUILLET, WASHINGTON, D. C.

At the time of the publication of Osten Sacken's Catalogue of the described *Diptera* of this country, no family was in greater disorder than the Dexidæ, the major portion of which were listed under the old genus *Dexia*, a genus which does not occur in our fauna so far as I am aware. Of these catalogued species, *Dexia analis* Say, *pedestris* Walk., and *pristis* Walk.; *Melanophora diabroticæ* Shimer, and *nigripes* Desv.; Walker's three species of *Illigeria*, and *Microphthalma nigra* Macq., are treated in my "Revision of the Tachinidæ" (Bull. No. 7, Technical series, U. S. Dept. of Agr., Div. of Entom.; Oct., 1897). The remaining species from this region, together with those described subsequently and in the present paper, are listed below. The synonymy, except where otherwise stated, is by the writer; names of genera and species unknown to me are preceded by a mark of interrogation (?). References to the descriptions of the genera and species catalogued by Osten Sacken are omitted.

Megerlea rufocaudata Bigot, if my identification is correct, belongs to the Sarcophagid genus, *Sarcophilodes*.

The receipt of a specimen of *Dexiosoma longifacies* Rond., from Brauer and Bergenstamm, of Vienna, Austria, proves that this is a synonym of *Microphthalma disjuncta* Wied., and the statement of the above authors that *Dexiosoma* is a synonym of *Microphthalma* is evidently correct.

DESCRIPTIONS OF NEW FORMS.

Megaparia opaca, sp. nov.

Male and female. Black, the two basal joints of antennæ, palpi, apex of proboscis, apices of femora, tibiæ and base of tarsi, yellow, lower half of head brown. Front of male at narrowest point one-third as wide as, in the female almost twice as wide as either eye, the sides and those of the face covered with stout black bristles, two orbital bristles in the female, wanting in the male; antennæ not reaching one-third of distance from their base to the oral margin, the second and third joints subequal in length, longest hairs of arista twice as long as its diameter at its base; vibrissæ inserted near the middle of the face, cheeks in the male two-thirds as broad as, in the female as broad as, the eye-height; head in profile nearly elliptical, over twice as high as long, face considerably retreating below, a low carina in the middle of the depression, eyes bare, proboscis rather slender, the portion beyond the basal

articulation less than one-fifth as long as height of head, labella very small. Body opaque gray pruinose, thorax marked with four indistinct black vittæ, bearing four postsutural dorso-central and three sternopleural macrochætæ, hairs of abdomen depressed, the last three segments bearing discal and marginal macrochætæ. Wings grayish hyaline, the veins bordered with brownish, most distinct in the female, third vein bearing three or four bristles near its base, veins otherwise bare, costal spine longer than the small cross vein, the latter noticeably before the middle of the discal cell, fourth vein strongly curved backward at the bend, the latter V-formed. Calypteres gray. Hind tibiæ not ciliate, pulvilli of male greatly elongate. Length, 10 to 11 mm.

Jackson, Fla. A specimen of each sex collected by Mrs. A. T. Slosson. Type No. 4117, U. S. Nat. Museum.

Phasiops flava, gen. et. sp. nov.

Male and female. Yellow, the frontal vitta of female yellowish brown, the hairs and bristles black. Front in the male at the narrowest point not wider than width of lowest ocellus, frontal vitta obliterated on nearly the upper half, front of female slightly wider than either eye, frontal bristles descending to base of antennæ, four pairs of orbital bristles in the female, wanting in the male; antennæ not reaching to middle of face, the third joint one and one-half times as long as the second, longest hairs of arista about twice as long as its greatest diameter at its base; face considerably retreating below, the sides bare, the median carina very high; vibrissæ inserted more than the length of the second antennal joint above the front edge of the oral margin, two or three bristles above each, facial ridges arcuate, rather remote at the vibrissæ; cheeks of male two-fifths, of female two-thirds as broad as the eye-height, eyes bare, proboscis rather slender, the portion beyond the basal articulation less than one-fourth as long as height of head, labella small, palpi nearly linear and rather short. Body subopaque, thinly gray pruinose, thorax bearing four pairs of postsutural dorso-central and two or three sternopleural macrochætæ, second and third segments of abdomen with marginal ones, hypopygium of male exerted and curved under the abdomen. Wings hyaline, those of the female strongly tinged with yellowish, veins bare, posterior crossvein nearly midway between the small and the bend of the fourth vein, the latter arcuate, apical cell open, ending close to the extreme wing-tip; calypteres yellow. Hind tibiæ not ciliate, pulvilli of male greatly elongate. Length, 7 to 9 mm.

Caldwell, New Jersey. A specimen of each sex collected by Mr. C. W. Johnson, whose generous donations have greatly enriched the collection of Diptera of the National Museum. Type No. 4118, U. S. Nat. Museum. An unusually short and robust form.

Atelogossa cinerea, gen. et sp. nov.

Male. Front less than one-fourth as wide as either eye, frontal bristles descending almost to base of antennæ, no orbital bristles, antennæ reaching halfway to the oral margin, the third joint almost twice as long as the second, longest hairs of arista twice as long as its greatest diameter at its base, head only slightly shorter at the

vibrissæ than at base of antennæ, median carina of face very high and broad, vibrissæ inserted more than the length of the second joint of the antennæ above the front edge of the oral margin, two or three bristles above each, facial ridges arcuate, remote at the vibrissæ, sides of the face bare, cheeks slightly more than one-third as wide the eye-height, eyes bare, proboscis rather slender, less than half as long as height of head, labella small, palpi wanting. Body subopaque, thinly gray pruinose, thorax marked with five black vittæ, bearing four pairs of postsutural dorso-central macrochætæ, second and third segments of abdomen with marginal but no discal ones. Wings hyaline, third vein bearing one or two bristles near the base, veins elsewhere bare, posterior cross-vein a short distance beyond middle between the small and the bend of the fourth vein, the latter arcuate, destitute of an appendage, apical cell open, ending a short distance before the extreme wing-tip, calypteres gray. Hind tibiæ not ciliate, pulvilli greatly elongated. Length, 7 mm.

Waldoboro, Maine. A single specimen collected by Mr. J. H. Lovell. Type No. 4119, U. S. Nat. Museum. Has much the form of the common house-fly.

Metadexia tricolor, gen. et sp. nov.

Male and female. Black, the antennæ, at least basally, palpi, labella and abdomen yellowish, first segment of abdomen largely or wholly, a dorsal vitta on the second and third, sometimes the bases of these segments, or their apices and the base of the fourth and the under side from the base to beyond the middle of the third segment, black or brown, femora and tibiæ sometimes partly or wholly yellow, scutellum tinged with reddish. Front of male one-fourth, of the female almost as wide as either eye, two pairs of orbital bristles in the female, wanting in the male, frontal bristles descending almost to base of antennæ, head at the vibrissæ noticeably shorter than at base of antennæ, epistoma produced forward, sides of face bare, white pruinose, facial ridges nearly straight, strongly diverging below, vibrissæ widely separated, inserted slightly above the front edge of the oral margin, two or three short bristles above each median carina of face very low; antennæ reaching from two-thirds to three-fourths of distance to the oral margin, the third joint from one and one-half to two and one-half times as long as the second, hairs of arista nearly three times as long as its greatest diameter at the base, cheeks over one-third as broad as the eye-height, proboscis rather robust, half as long as height of head, labella rather large, palpi well developed. Thorax opaque, gray pruinose, marked with four black vittæ, bearing four postsutural dorso-central and two sternopleural macrochætæ. Abdomen shining, bases of the segments white pruinose, each segment bearing marginal macrochætæ and in the male the last three segments with discal ones. Wings hyaline, the veins bordered with brownish, most distinct in the female, first vein bearing several bristles near its middle, the third bristly at least one-third of distance to the small crossvein, posterior crossvein beyond the middle of the distance from the small to the bend of the fourth vein, the latter almost rectangular and destitute of an appendage, apical cell open, ending some distance in front of the extreme wing-tip; calypteres white. Hind tibiæ not ciliate, pulvilli of male very elongate. Length, 6 to 9 mm.

Shreveport (June 12, 1891; F. W. Mally); and Opelousas (April, 1897; G. R. Pilate), La.; Lawrence, Kan. (J. M. Aldrich); and St. Augustine, N. Mex. (T. D. A. Cockerell). Three males and three females. Type No. 4120, U. S. Nat. Museum. A rather slender and elongated form.

***Chætona bicolor*, sp. nov.**

Male. Black, the first two joints of antennæ, palpi, apex of proboscis, femora except bases of first two pairs, tibiæ and abdomen yellow, base of first segment of abdomen, extending across the segment in the middle of the dorsum, also the narrow apex of each segment, brown. Front at narrowest part scarcely wider than the lowest ocellus, the frontal vitta obliterated for a short distance, frontal bristles descending to base of antennæ, no orbital bristles, antennæ nearly reaching the oral margin, the third joint three times as long as the second, longest hairs of arista over twice as long as its greatest diameter at the base, sides of face bare, no median carina, cheeks less than one-seventh as wide as the eye-height, proboscis almost half as long as height of head, rather robust, labella rather large. Thorax subopaque, thinly gray pruinose, marked with five indistinct black vittæ, bearing three prosutural dorsocentral and two sternopleural macrochæte. Abdomen polished, very thinly gray pruinose, each segment bearing a marginal row of short macrochæte, the last two also with discal ones. Wings hyaline, tinged with yellow at the base and along the veins, the latter bare, small crossvein at the middle of the discal cell, calypteres yellow. Length, 7 mm.

White Mts., N. H. A single specimen collected by the late H. K. Morrison. Type No. 4121, U. S. Nat. Museum.

***Chætona nitens*, sp. nov.**

Female. Black, the labella yellowish. Front two-thirds as wide as either eye, frontal bristles descending below middle of second antennal joint, two pairs of orbital bristles, antennæ reaching the oral margin, the third joint very strongly pubescent, four times as long as the third, longest hairs of arista only slightly longer than its greatest diameter at the base, sides of face bare, extremely narrow, no median carina, facial ridges straight, diverging below, vibrissæ near the oral margin, one or two bristles above each, cheeks scarcely one-tenth as broad as the eye-height, proboscis about one-fourth as long as height of head, very robust, labella unusually large. Thorax polished, the sides anteriorly and the pleura white pruinose, three postsutural dorsocentral and two sternopleural macrochæte. Abdomen polished, the front angles of the last three segments white pruinose, these segments bearing only marginal macrochæte. Wings distinctly smoky on the costal half, the remainder nearly pure hyaline, third vein bearing one or two bristles near the base, veins elsewhere bare, small crossvein at middle of discal cell, hind crossvein midway between the small and bend of fourth vein, the latter arcuate, apical cell open, ending at the extreme wing-tip; calypteres whitish. Length, 3.5 mm.

Franconia, N. H. A single specimen collected by Mrs. A. T. Slosson. Type No. 4122, U. S. Nat. Museum.

Chætona spinosa, sp. nov.

Male. Differs from the above description of *nitens* as follows: Sides of second segment of abdomen, hind corners of the first and front corners of the third segment, yellow. Front one-fifth as wide as either eye, frontal bristles descending to insert on of antennæ, no orbital bristles, antennæ reaching three-fourths of distance to oral margin, the third joint short pubescent, two and one-half times as long as the second, cheeks one-seventh as broad as the eye-height. Thorax white pruinose along the suture and with two subdorsal vittæ in front of it. Abdomen white pruinose at bases of the second and third segments, the last three segments bearing discal macrochætæ. Length, 5.5 mm.

Pennsylvania. A single specimen. Type No. 4123, U. S. Nat. Museum.

Chætona grisea, sp. nov.

Male. Differs from *nitens* as follows: Base of antennæ and the palpi yellow. Front less than twice as wide as the lowest ocellus, frontal bristles descending to insertion of antennæ, no orbital bristles, antennæ reaching three-fifths of distance to the oral margin, the third joint bare, nearly twice as long as the second, longest hairs of arista three times as long as its greatest diameter, sides of face bearing a few bristly hairs on the upper half, facial ridges rather strongly arcuate. Thorax, scutellum and abdomen subopaque, gray pruinose. Length, 6 mm.

Georgia. A single specimen. Type No. 4124, U. S. Nat. Museum.

WHIRLIGIG-BEETLES TAKING A SUN-BATH.

BY WILLIAM T. DAVIS.

Walking along the banks of the Pequannock River in Passaic County, New Jersey, on the 30th day of May, the writer noticed one of the very common assemblages of whirligig-beetles swimming about among the twigs of a tree branch that lay in the water. Upon drawing nearer it was discovered that three of the beetles had climbed up the branch several inches above the water, and were evidently enjoying a sun-bath, in the same manner that turtles do under similar circumstances. Like turtles, also, they slipped off of the branch into the water, but they allowed one to approach quite close before taking alarm. Several specimens from the assemblage were captured, all of them proving to be *Dicucutes discolor*. Entertaining accounts are given of the habits of whirligig-beetles in various entomological text-books, but the sun bath custom does not appear to be mentioned.